

MARKED-UP VERSION OF AMENDED CLAIMS

91. (Amended) An *in vitro* process for producing more than one copy of a specific nucleic acid, said process being (1) independent of a requirement for the introduction of an intermediate structure for the production of said specific nucleic acid, and (2) independent of a requirement for the introduction of an endonuclease, said process comprising the steps of:

- (a) providing a nucleic acid sample containing or suspected of containing the sequence of said specific nucleic acid;
- (b) contacting said sample with a mixture comprising:
 - (i) nucleic acid precursors;
 - (ii) one or more specific nucleic acid primers each of which is complementary to a distinct sequence of said specific nucleic acid, and
 - (iii) an effective amount of a nucleic acid producing catalyst; and
- (c) allowing said mixture to react under isostatic conditions of temperature, buffer and ionic strength, thereby producing more than one copy of said specific nucleic acid.

* * * * *